

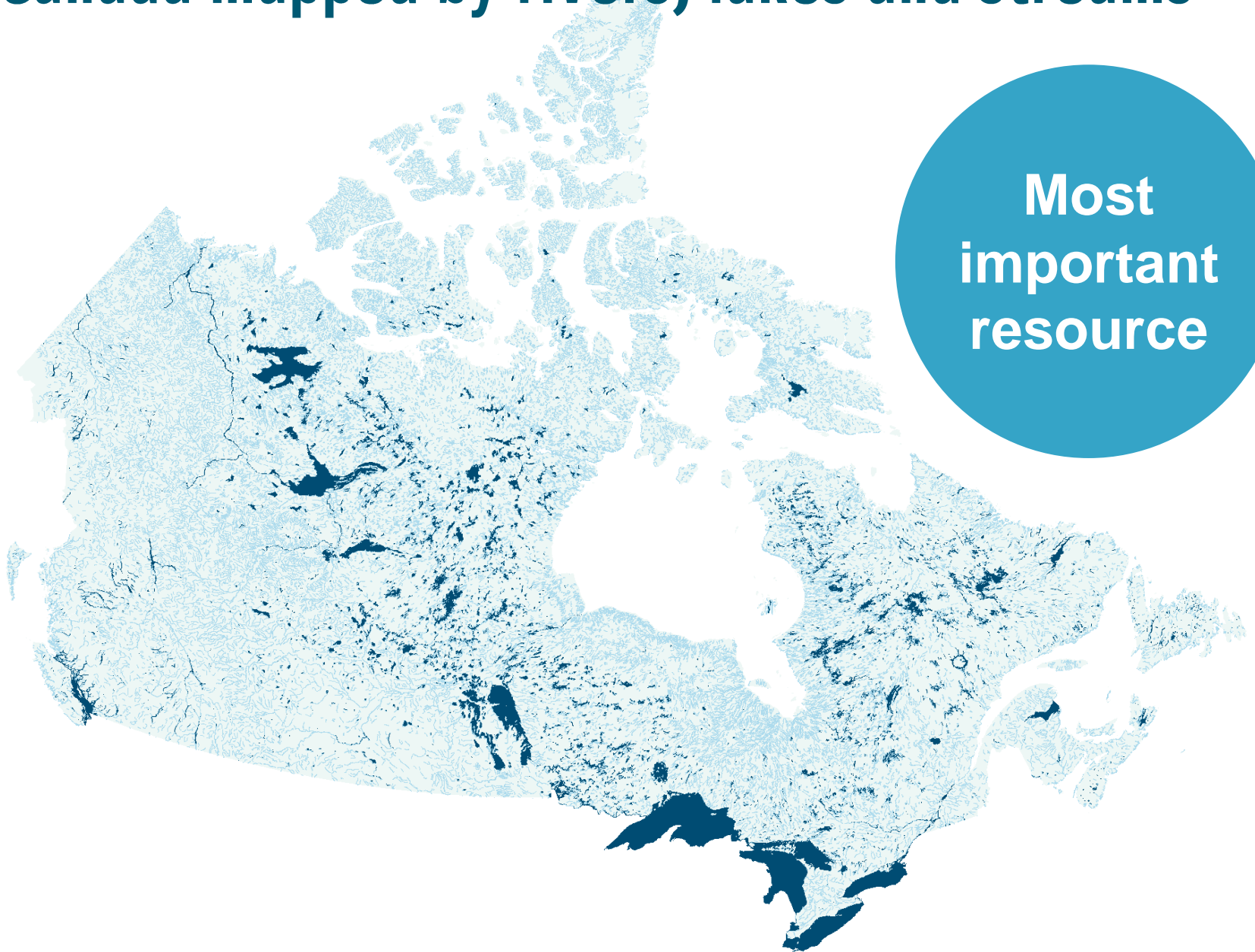


# WWF-Canada's Freshwater Program From Watershed Reports to Atlantic Datastream

WWF-Canada  
Catherine Paquette, Specialist Freshwater  
[@cath\\_paquette](#)



# Canada mapped by rivers, lakes and streams



**Most  
important  
resource**



# WATERSHED REPORTS



# Health Metrics



- **Hydrology Metric**

- Composite of annual, monthly, LT and ST trends
- Pre vs. Post Dam analysis



- **Fish Metric**

- Presence/absence of a decline of in native species richness over time



- **Benthic Macro-invertebrate Metric**

- Family-level Hilsenhoff Biotic Index

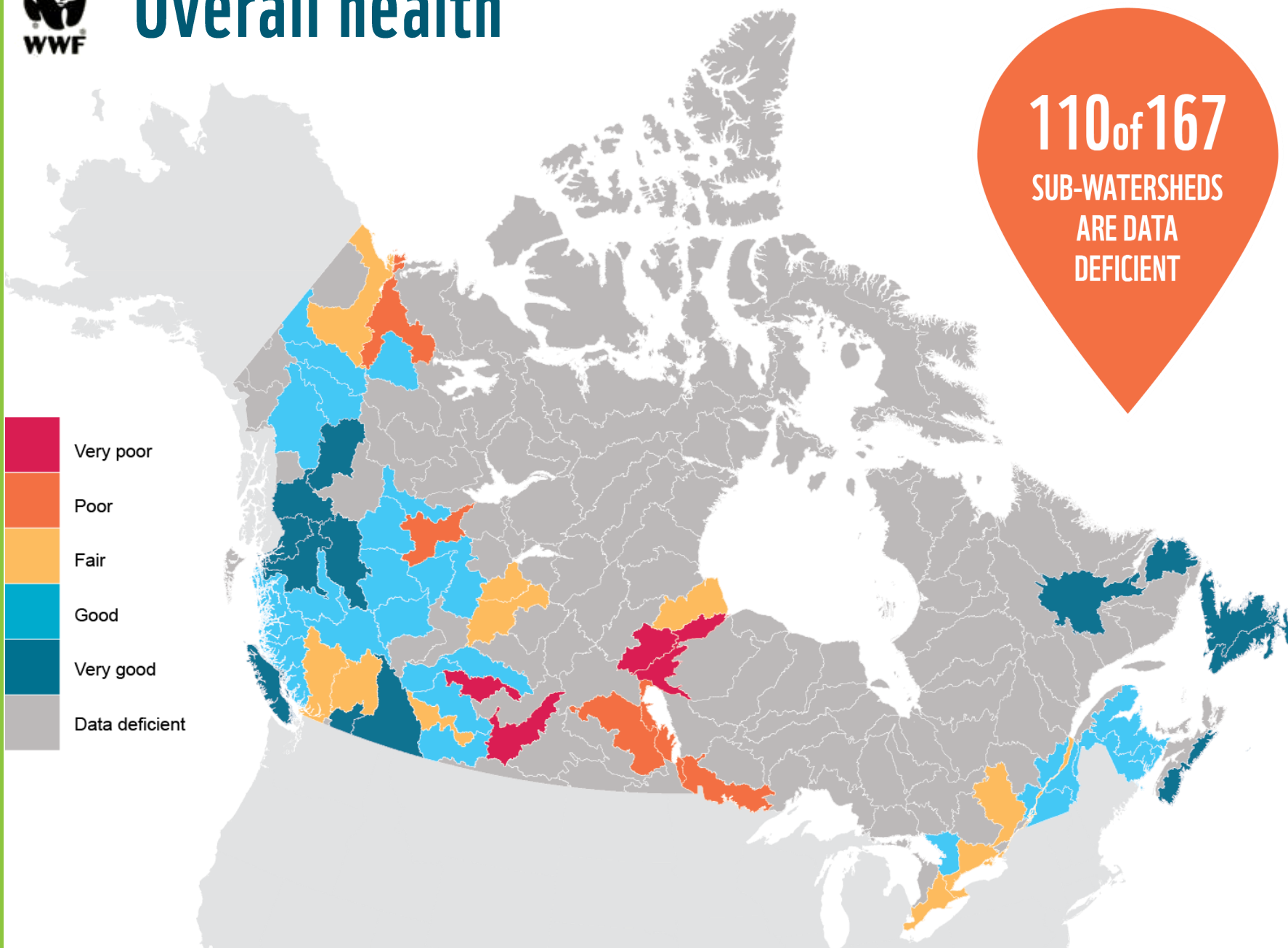


- **Water Quality Metric**

- Proportion of exceedances of WQ guidelines



# Overall health



110 of 167

SUB-WATERSHEDS  
ARE DATA  
DEFICIENT



# Key threats to freshwater ecosystems



Pollution



Habitat loss



Over allocation/  
water use



Habitat  
fragmentation



Alteration to  
flows



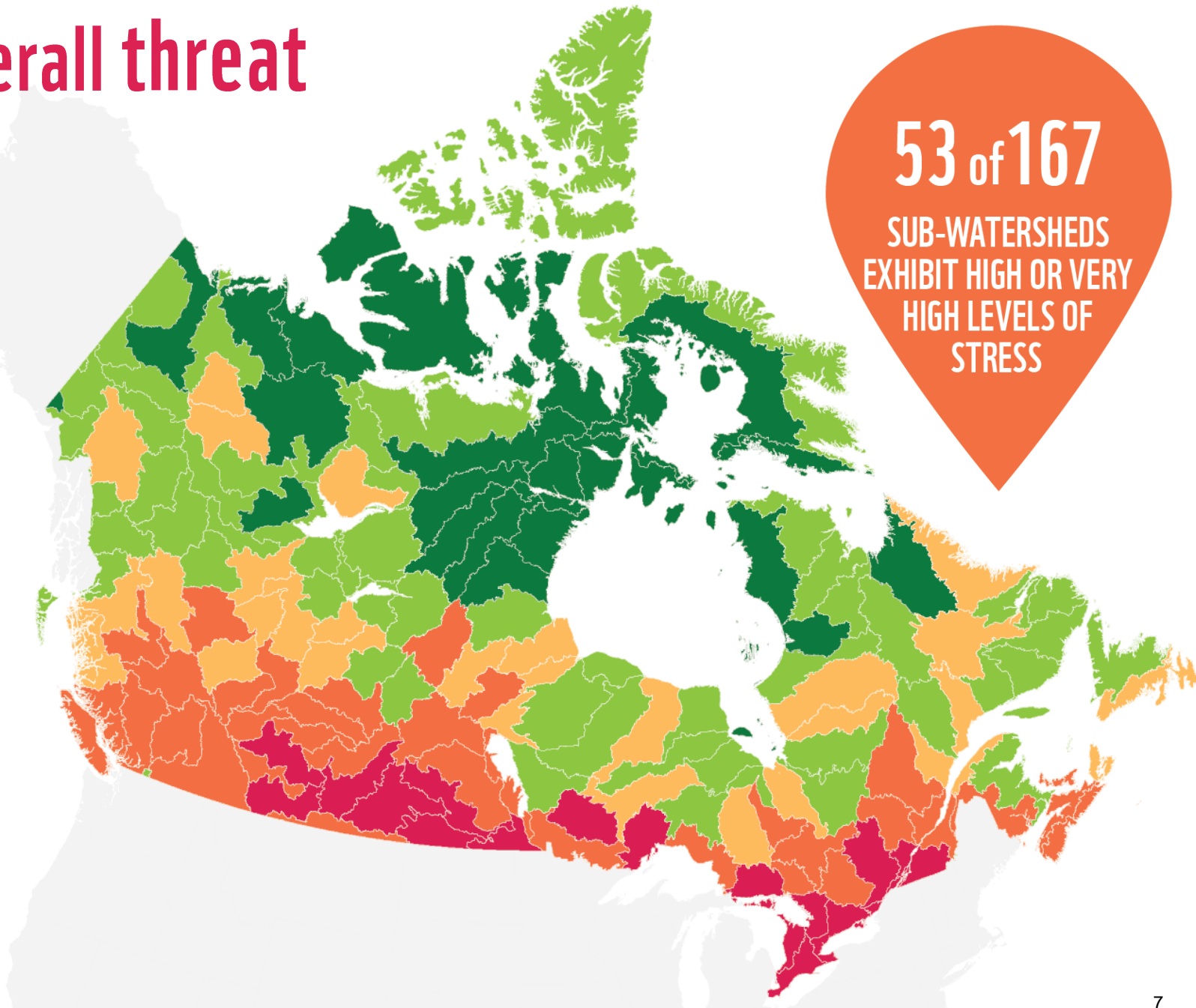
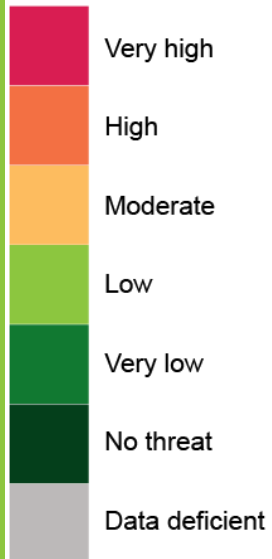
Invasive species



Climate change



# Overall threat



53 of 167

SUB-WATERSHEDS  
EXHIBIT HIGH OR VERY  
HIGH LEVELS OF  
STRESS



# Watershedreports.wwf.ca

The screenshot shows the main interface of the Watershed Reports website. On the left is a map of Canada with a color-coded legend on the far left. The top navigation bar includes links for 'About', 'Watershed 101', 'Take Action', 'Donors', '+ Share', and 'Français'. Below the map, there's a 'Select indicator' dropdown set to 'Overall threats' and a 'Map layers' section with 'Loblaws' selected. The main content area displays 'Canada' with sub-tabs for 'Profile', 'Threats', and 'Health'. A large image of a mountain range is shown below the tabs.

This screenshot shows a detailed view of the Great Lakes watershed. The map highlights the watershed area in orange and yellow, with labels for 'ONTARIO', 'QUÉBEC', 'Thunder Bay', 'Ottawa', and 'Montréal'. The 'Select indicator' dropdown is set to 'Overall health', and the 'Map layers' section includes 'Loblaws Water Fund Projects' and 'Measurement Sites'. The right sidebar provides a detailed analysis of the watershed's health.

**WATERSHED REPORTS**

Navigation: About Watershed 101 Take Action Donors + Share Français

Canada Watershed Sub-watersheds (8) Sites

Profile Threats **Health**

**Analysis**

We cannot rate the overall health of the Great Lakes watershed due to lack of available data in five of the eight sub-watersheds.

Overall, flow in the rivers of the Great Lakes watershed is "fair", with sub-watersheds scoring either "fair" or "good". Changes in long-term monthly flow, an indicator we assess for flow, showed "very poor" results for all but one sub-watershed.

Overall water quality is also "fair", with sub-watersheds scoring either "fair" or "good". However, water quality scores for

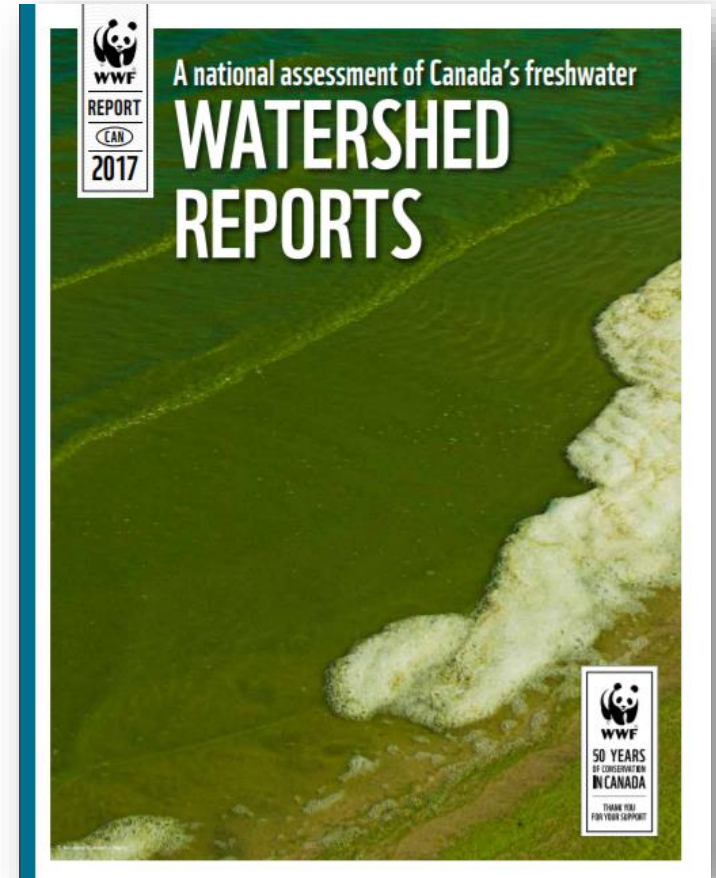
**Scores by health indicator**

- OVERALL HEALTH**  
Data deficient
- WATER FLOW**  
Fair
- WATER QUALITY**  
Fair
- FISH**  
Data deficient
- BENTHIC INVERTEBRATES**  
Data deficient



# Key learnings

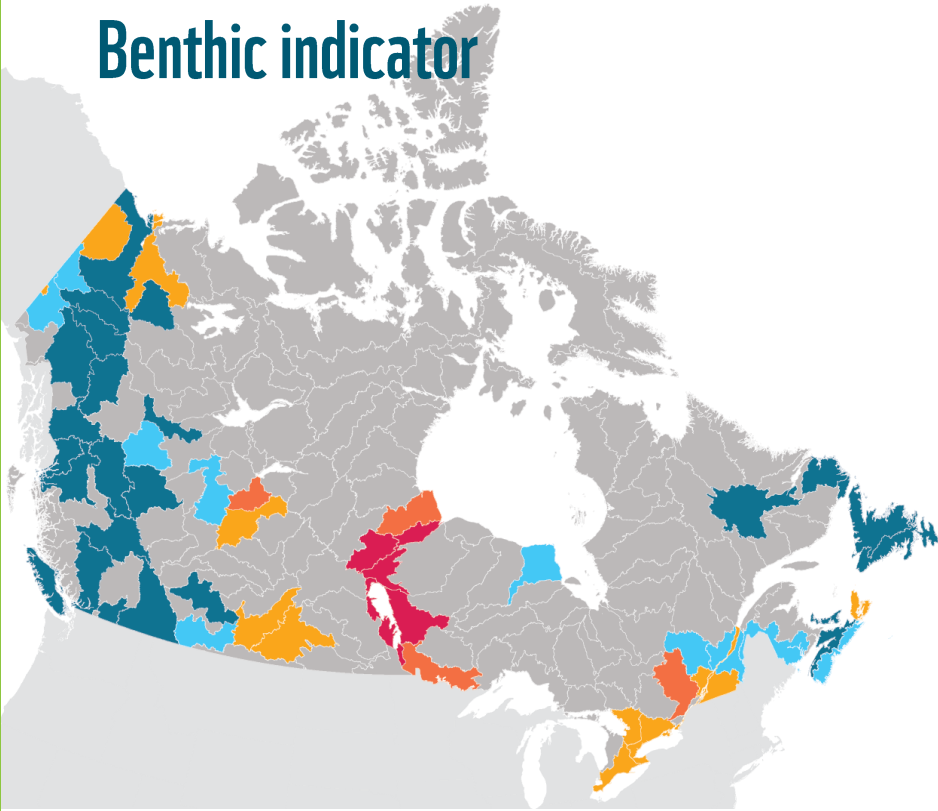
- Modernizing freshwater management:
  - Collection of data
    - Lack of community-based monitoring/citizen science
    - Uneven coverage and representation
    - Models, hubs and scaling up
  - Analysis of data
    - Inconsistent protocols
    - Inconsistent guidelines
    - Diversity of partners, varied reliability levels
    - Issue of scale
    - Timeliness of reporting
    - Standardization
  - Sharing data
  - Data Currency





# STREAM (Sequencing The River for Environmental Assessment and Monitoring)

## Benthic indicator



## Issues

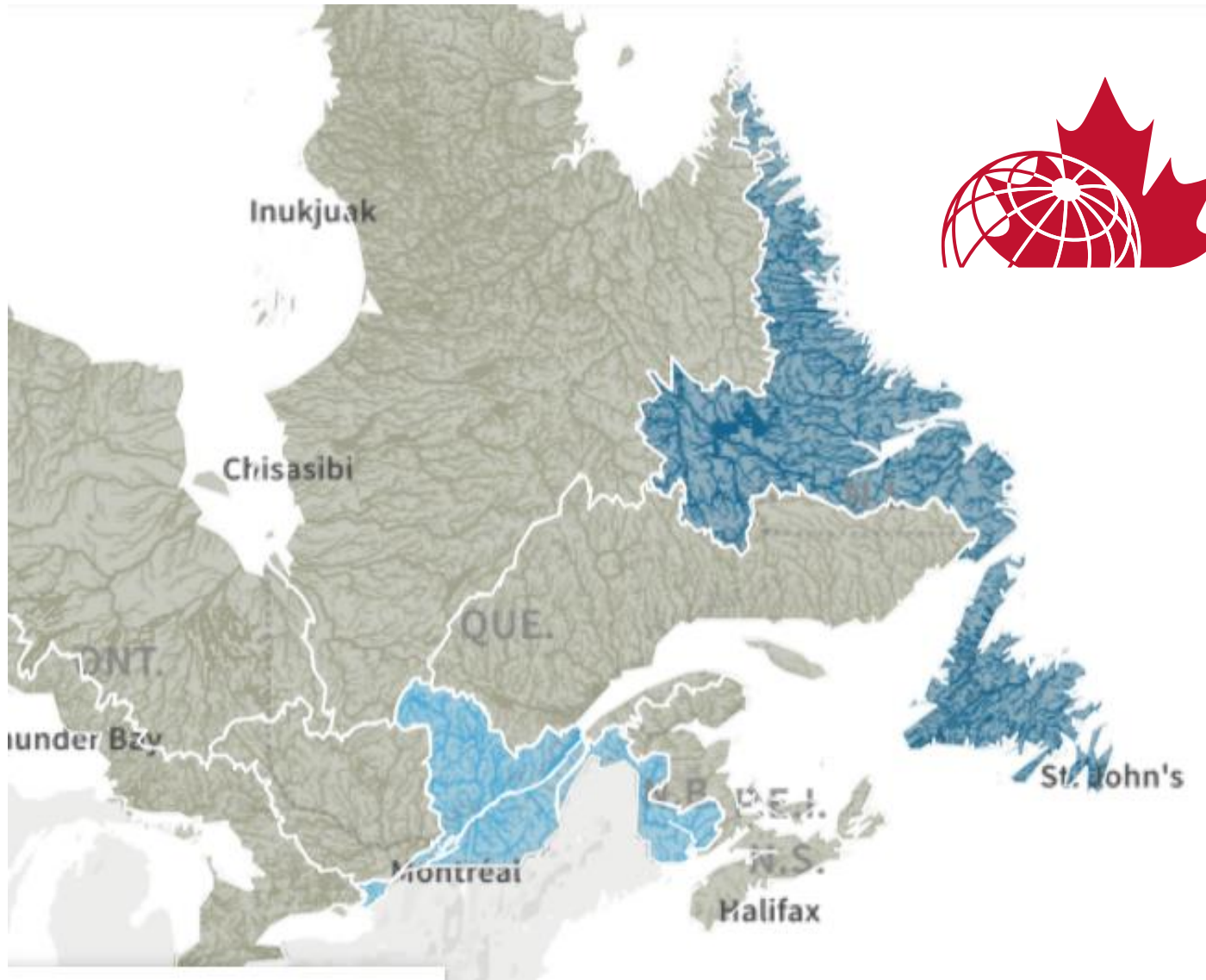
- Data deficiency
- Lack of community involvement

## Solutions

- Increase capacity
- Standardized protocol
- Open and accessible data



# Atlantic DataStream



**THE  
GORDON  
FOUNDATION**





# Thank you

---

wwf.ca

Catherine Paquette, [cpaquette@wwfcanada.org](mailto:cpaquette@wwfcanada.org)